Request for input

Verification process for ENERGY STAR certified buildings

July 2014

EPA is soliciting input on the process for verifying the data submitted in applications for EPA ENERGY STAR certification of commercial buildings. In particular, EPA is interested in gathering input on the requirement that a licensed professional review and stamp the application. EPA has had this requirement in place, with minor alterations, since first launching ENERGY STAR certification for buildings in 1999. With 15 years and over 23,000 certifications since that time, EPA is looking into whether modifications can reduce the cost to applicants while maintaining the integrity of the verification process.

Section VI, at the end of this document, provides questions on which EPA is seeking input. We welcome your comments, however, on any aspect of the ENERGY STAR verification process. Please submit your written comments by **August 15, 2014**, to EPA at buildingverification@energystar.gov, or click here to answer the questions online (as well as provide any other input).

I. Overview of ENERGY STAR certification process

Building stakeholders can apply for ENERGY STAR certification for buildings that score 75 or better on EPA's ENERGY STAR 1-100 energy performance scale. A score of 75 means that a building performs better than 75 percent of similar buildings nationwide.

The first step to certification is entry of data into EPA ENERGY STAR Portfolio Manager. This includes basic building information, such as address and type of building, as well as business activity such as number of workers, hours of operation, and number of computers, and at least 12 consecutive months of energy meter data for all sources of energy used in the building. Only certain types of buildings are eligible for certification:

- Bank branch
- Courthouse
- Data center
- Distribution center
- Financial office
- Hospital (general medical & surgical)
- Hotel
- K-12 school
- Office
- Retail store
- Senior care community
- Supermarket/ grocery store
- Warehouse
- Wholesale club/ supercenter
- Worship facility

If the building meets these basic criteria, and passes the checks described below in section III.B. of this document, the Portfolio Manager user can proceed to the next step of certification. This entails having either a licensed Professional Engineer or a Registered Architect (collectively, licensed professional, or LP) review the information submitted to EPA through Portfolio Manager as well as other attributes of the building. After determining that the information is correct (or correcting any deficiencies), the LP then affixes a stamp, which includes his or her professional license number, to the application, attesting that the application is complete and correct and that the indoor environmental quality meets industry standards.

EPA requires that the LP possess a current license in any U.S. State, Canadian Province, or territory of the U.S. or Canada and is in good standing; has a working knowledge of building systems, ASHRAE Standard 55, ASHRAE Standard 62.1, and the IESNA Lighting Handbook; and understands all applicable state and territorial engineering and architectural licensure laws, professional ethics requirements, and regulations prior to offering or performing verification of ENERGY STAR applications in any jurisdiction.

Upon receipt of the stamped application, EPA conducts its own review of the application before awarding ENERGY STAR certification.

II. Value and market adoption of ENERGY STAR certification

The number of buildings applying for and achieving ENERGY STAR certification has grown dramatically since the first certification in 1999. Not only do thousands of buildings newly apply for certification each year, but an equal number re-apply to attain the ENERGY STAR designation year after year. EPA lists certified buildings on the ENERGY STAR website, includes them in its annual count of cities with the most certified buildings, and promotes them in other ways. Many organizations highlight their certified buildings in press releases, annual reports, and other communications.

Several studies, comparing thousands of buildings across the country, have documented the value of ENERGY STAR certification. ENERGY STAR buildings command rental rates 7.3-8.6% higher, have occupancy rates 10-11% higher, and sell for 6-10% more than non-certified buildings (for a summary of the studies, see U.S. Department of Energy, "Energy Efficiency & Financial Performance: A Review of Studies in the Market," March 2014).

Finally, a number of organizations incorporate ENERGY STAR certification in their programs and policies. At the local level, Chicago's recently adopted benchmarking and disclosure policy will recognize buildings with current ENERGY STAR certification as having fulfilled the City's data verification requirement. At the national level, the Energy Independence and Security Act of 2007 requires the General Services Administration to lease space in buildings that have recently earned ENERGY STAR certification (with a few exceptions).

Ensuring the integrity of ENERGY STAR certification is critical to maintaining its value and the confidence of those who rely on it.

III. Review and verification of ENERGY STAR applications

To protect the integrity of the ENERGY STAR brand, EPA must take steps to ensure that data submitted to EPA for ENERGY STAR certification is not only as accurate as possible, but also that it represents a good faith effort on the part of the submitter.

A. Objectives

The review and verification process must meet three primary objectives to succeed in protecting the integrity of ENERGY STAR:

1. Ensures the data and other information in applications is accurate, entered correctly, and consistent with EPA's criteria. There is a substantial amount of energy meter and other data required and it is easy to make mistakes in entering the data. There are also eligibility criteria for determining which types of buildings are eligible for the 1-100 ENERGY STAR score that can be misunderstood.

2. Verifies the building is maintaining acceptable indoor environmental conditions. It is possible to use less energy by limiting ventilation, which can compromise indoor air quality, and by reducing lighting to inappropriate levels. It is important that ENERGY STAR certified buildings meet or exceed industry standards for indoor environmental conditions.

3. Protects against fraud. Because of the value of ENERGY STAR certification described above, an unscrupulous Portfolio Manager user could knowingly enter incorrect data to raise a building's score to 75 in order to apply for certification. There are two aspects of protection against fraud, both of which are important:
   - Deterrence against submission of knowingly false information
   - Recourse in the event that knowingly false information is submitted to EPA

B. Current measures

The following table lists the primary measures EPA takes to ensure proper review and verification, and which objective each addresses. As the table illustrates, there are many ways in which EPA seeks to ensure accuracy and deter fraudulent applications, and just two options for recourse available to EPA in the event that an application is found to contain falsified information: contacting the LP's state licensing board to seek suspension or revocation of the license; and prosecuting the

applicant under Federal law. To date, EPA has not exercised either of these options. Any concerns about potentially incorrect information have been addressed through consultation with the applicant and/or LP. If EPA were to pursue these more formal actions, the first step would be to confer with the LP's state licensing board. Pursuing action under Federal law would be a last resort, taken only if other steps did not resolve the concerns.

Below the table is a description of each of the measures.

Measure	Objective			
	Accuracy	*Assurance of acceptable indoor environmental conditions*	*Protection against fraud*	
			Deter fraud	*Seek recourse in event of fraud*
Online Licensed Professional Guide, FAQs, how-to guides, training sessions	√	√		
Letter of Agreement			√	
Licensed Professional site visit, review and stamp	√	√	√	√
EPA data review	√			
EPA spot audits	√		√	
Federal law against submission of false information			√	√

Online resources: To help the LP and others involved in compiling the application to determine eligibility for the ENERGY STAR score and enter accurate data, EPA makes available via energystar.gov several types of guidance. These include the following:

- LP Guide, with detailed instructions about how to review all aspects of ENERGY STAR certification applications, and a data checklist that includes every data point entered into Portfolio Manager that contributed to the calculation of an eligible ENERGY STAR score
- Frequently asked questions on the verification process
- Step-by-step how-to guides
- Training sessions, available to all building stakeholders, including LPs, on using Portfolio Manager and ENERGY STAR certification. Individuals can sign up for live trainings throughout the year, or view recorded training sessions online at any time.

Letter of Agreement: As part of the application, the submitter signs a Letter of Agreement, which includes a statement that must be initialed by the applicant attesting that information is true and correct, and that the applicant agrees to abide by EPA's rules governing the use of the ENERGY STAR certification and logo.

Licensed Professional site visit, review, and stamp: The LP must either visit the site or designate a representative under his or her direction and control to do so, in order to check and verify the reported information. One of the things the LP is responsible for verifying is that indoor environmental standards are being met and that indoor air quality, thermal environmental conditions, and illumination levels are acceptable. The LP completes a checklist, indicating that he or she has reviewed all of the necessary information, and affixes his or her current, state-licensed stamp to the checklist, which must be submitted as part of the application. If ENERGY STAR determines that an LP knowingly submitted false information, EPA could seek recourse through the LP's state licensing board, including petitioning the board to suspend or revoke the LP's license.

EPA data review: Once a user enters data into Portfolio Manager, the system conducts an automated review of the data and identifies entries that deviate from normal parameters; users receive alerts and must provide an explanation before the application can proceed. After receipt of an application, EPA conducts a manual review to identify information or data that is outside expected bounds.

EPA spot audits: New in 2014, EPA is implementing spot audits. On a regular, ongoing basis, EPA will randomly pull applications in the review process to undergo an audit, which may include asking for additional information to confirm that applications contain complete and correct data.

Federal law: EPA also has recourse under Federal law should an application be found to contain falsified information. Title 18 USC Section 1001, Crimes and Criminal Procedure, Fraud and False Statements, provides that:

> Whoever, in any matter within the jurisdiction of the executive, legislative, or judicial branch of the Government of the United States, knowingly and willfully – (1) falsifies, conceals, or covers up by any trick, scheme, or device a material fact; (2) makes any materially false, fictitious, or fraudulent statement or representation; or (3) makes or uses any false writing or document knowing the same to contain any materially false, fictitious, or fraudulent statement or entry; shall be fined under this title, imprisoned not more than 5 years … or both.

IV. What is the difference between licensing and certification?

Both professional licensing and certification are forms of *credentialing*. As described below, both types of credentials require training and demonstration of competence through testing. Key differences include whether the credential is required for practice of a specific profession, and who issues the credential. A professional license authorizes an individual to practice a specific profession. A certification, on the other hand, is a designation that indicates an individual is qualified to perform a particular job or task. Licensure is administered by the government, while certifications are administered by third party organizations.

Just as driving without a current driver's license is illegal, so is the practice of engineering or architecture without a current Professional Engineer's or Registered Architect's license. Earning a PE or RA license requires successful completion of a rigorous course of academic study, an apprenticeship under a licensed engineer or architect (for a period of at least four years for PEs), exams, and, to maintain the license, continuing education. Professional licenses are issued and overseen by governmental organizations, generally state-by-state licensing boards. Other examples of professions that require professional licenses include attorney, certified public accountant, doctor, nurse, and school teacher.

A certification may require just as much – or even more – academic study than a license, as well as exams and continuing education. Certifications are generally issued and overseen by professional associations, universities, and private organizations. Examples of certifications relevant to energy management in commercial buildings include those listed below, along with the name of the organization that issues the certification[1]:

- Certified Energy Manager (AEE)
- Certified Energy Auditor (AEE)
- LEED AP (USGBCI))
- LEED GA (USGBCI)
- Building Operator Certification (NEEA)
- Building Energy Assessment Professional (ASHRAE)
- Property Administrator (BOMI)
- Facilities Management Administrator (BOMI)
- Systems Maintenance Administrator (BOMI)
- Commissioning Process Management Professional (ASHRAE)
- Certified Building Commissioning Professional (AEE)
- Certified Commissioning Professional (BCA)
- Retro-Commissioning Certification (NEBB)
- Certified Property Manager (IREM)
- Certified Facility Manager (IFMA)
- Green Globes Professional (GBI)

V. Discussion

A primary reason that EPA has limited the pool of verifiers to those with Professional Engineer or Registered Architect licenses is related to the significance of a license. It is the PE's or RA's license that allows him or her to engage in the practice of engineering or architecture. Without it, he or she could not legally practice engineering or architecture. The strong deterrent, ability to seek recourse from a state licensing board, and required education and work experience have

[1] For a more comprehensive list, see Institute for Market Transformation's "Training and Certification Programs" list at http://www.imt.org/uploads/resources/files/EE_Training_and_Certification_Program_List_2-2012.pdf

provided EPA with confidence in the integrity of the ENERGY STAR certification process.

EPA believes that to date, limiting verifiers to LPs has worked well in ensuring that data is accurate and truthful, and that indoor environmental quality is acceptable. Third-party audits of ENERGY STAR buildings conducted in 2003 and 2007 found that the process is sound and effective. However, limiting the pool of verifiers may have also made it more difficult and costly for buildings to certify once they achieve a score of 75 or better, particularly in the public and small business sectors, and for houses of worship.

EPA has made some adjustments to the LP verification requirements in prior years, in order to lower the barriers to ENERGY STAR certification and make it accessible to more buildings and organizations. These changes added flexibility to the requirements by allowing:

- Registered Architects, as well as Professional Engineers, to review and stamp applications
- A representative of the LP to conduct the site visit, rather than requiring the LP to do so
- LPs to review and stamp applications for buildings in any state, regardless of the state in which the LP is licensed

Also, individual LPs have offered to verify a limited number of ENERGY STAR applications for public schools and other public sector buildings at no cost.

One way that EPA could seek to further lower the barriers to ENERGY STAR certification is by allowing individuals of any profession to verify applications as long as they have obtained a specific type of certification (e.g., Certified Energy Manager, LEED AP). The number and quality of relevant skill and experience-based certifications has grown since EPA began awarding ENERGY STAR certification to buildings. An individual who has earned a certification that entails training in building energy use and environmental conditions may be very well qualified to review ENERGY STAR applications. Further, EPA may be able to ask the organizations that issue these certifications to revoke an individual's certification if he or she knowingly submits false information. However, revoking a certification may not have the same significance as revoking a license. An individual who loses a certification can no longer claim that distinction, but may continue to work in his or her chosen profession.

EPA is looking for your help in balancing the need to protect the integrity of ENERGY STAR certification against the cost and other barriers to obtaining certification.

VI. Providing input to EPA

To help EPA determine if we should change the current licensed professional requirements, we welcome any input you have on EPA's ENERGY STAR certification review and verification process. To help you focus your input, we have included a few specific questions below. Please either submit your written comments by **August 15, 2014**, to EPA at buildingverification@energystar.gov, or click here to answer the questions online.

1. EPA has identified cost and availability of licensed professionals as barriers to ENERGY STAR certification of commercial buildings. Do you agree that these are the right barriers, or are other barriers important instead, or in addition to these?

2. Would allowing additional categories of credentialed professionals to verify applications for ENERGY STAR certification help to lower the barriers to certification? Why or why not?

3. If EPA were to allow additional categories of credentialed professionals to verify ENERGY STAR applications, what impact, if any, would this have on the integrity and value of ENERGY STAR certification? Are there additional safeguards EPA could implement to limit the impact?

4. What criteria should ENERGY STAR use to determine which additional credentialed professionals could verify ENERGY STAR applications?

5. Are there other ways that EPA could lower the barriers to ENERGY STAR certification while maintaining its integrity and value?

6. Do you have any other comments on the verification process for ENERGY STAR buildings?